



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/533,747

11/09/2006

Pinchas Shalev

127/04378

7965

44909

7590

08/18/2008

PRTSI

P.O. Box 16446

Arlington, VA 22215

EXAMINER

RALIS, STEPHEN J

ART UNIT

PAPER NUMBER

3742

MAIL DATE

DELIVERY MODE

08/18/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,747	Applicant(s) SHALEV ET AL.	
	Examiner STEPHEN J. RALIS	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 16-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 16-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/29/2007, 11/9/2007 and 5/5/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant is respectfully requested to provide a location within the disclosure to support any further amendments to the claims due to when filing an amendment an applicant should show support in the original disclosure for new or amended claims. See MPEP § 714.02 and § 2163.06 ("Applicant should specifically point out the support for any amendments made to the disclosure.").

Priority

2. Applicant's claim for priority benefit of International Application No. PCT/IL2004/000603, filed 06 July 2004, is acknowledged.

Election/Restrictions

3. Applicant's election with traverse of Group I, sub-group 1d in the reply filed on 01 May 2008 is acknowledged. The amendment/arguments presented in the traversal are found persuasive in lieu of the limitations of the originally presented claim 1 and amended claim 13 no longer presenting a lack of unity of invention. Therefore, the claims previously withdrawn from consideration have been rejoined. The claims pending in the instant application are claims 1-13 and 16-29.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

Art Unit: 3742

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-13 and 16-29 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The one or more of the low mass of the wire, pulsing of the wire, heating of the wire only when motion is detected and/or the removal of the wire from skin contact when motion is not detected are critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The instant published application (paragraph 102) discloses "Unlike the prior art device described in the background of the invention, the heated *wire can be hot enough* to heat the hair to a temperature substantially higher than a *temperature that would damage the skin, due to one or more of* the low mass of the wire, pulsing of the wire, heating of the wire only when motion is detected and/or the removal of the wire from skin contact when motion is not detected.". The elements noted in the specification are required to prevent injury to the user. Therefore, the examiner asserts that the temperatures recited in the claims would burn and/or damage skin without the requirements of the specification. Therefore, the claims are deemed non-enabling.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 5-11, 13 and 16-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Solvinto (French Publication No. FR 2532878 A).
8. Solvinto discloses a hair cutting head for use in a hair cutting apparatus and a method of cutting hair growing from the skin (see Figures 1-7), comprising: an elongated heated wire (heated metal wire or strip; Abstract) suitable for heating hair growing from a skin surface (Abstract); and at least one blade (one cutting blade), placed at one side of the elongated heated wire (one blade carrying a metal wire or strip; Abstract), the at least one blade being situated and configured to cut the hair which has been heated by the heated wire, wherein the wire is heated to a temperature of at least 50°C (heated between 700 and 1000 °C; Abstract).

With respect to the limitations of claim 5, Solvinto further discloses the elongated heated wire (heated metal wire or strip; Abstract) being heated to a temperature between 700 and 1000 °C when the apparatus is brought into contact with a skin surface to cut hair (Abstract). Therefore, Solvinto fully meets “wherein said wire is heated when said cutting head comes in contact with a skin surface” given its broadest reasonable interpretation.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3742

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 1, 5-13 and 16-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Iderosa (U.S. Patent No. 5,065,515) in view of Solvinto (French Publication No. FR 2532878 A) and Ringler et al. (U.S. Patent No. 20020151881).

Iderosa discloses a hair cutting head for use in a hair cutting apparatus and a method of cutting hair growing from the skin, (see Figure 3), (shaving system; Title) comprising: an elongated heated wire (heating element 15) suitable for heating hair

Art Unit: 3742

growing from a skin surface (column 3, line 52 - column 4, line 18); and at least one blade (46), placed at one side of the elongated heated wire (heating element 15) (see Figure 3), the at least one blade (46) being situated and configured to cut the hair which has been heated by the heated wire (heating element 15; column 3, line 52 - column 4, line 18; column 6, lines 28-44).

With respect to the limitations of claim 5, Iderosa discloses the elongated heated wire (heating element 15) being heated to a temperature sufficient to soften hair when the apparatus is brought into contact with a skin surface (column 3, line 52 - column 4, line 18; column 6, lines 28-44). Therefore, Iderosa fully meets "wherein said wire is heated when said cutting head comes in contact with a skin surface" given its broadest reasonable interpretation.

With respect to the limitations of claim 22, Iderosa discloses the elongated heated wire (heating element 15) and blade (46) being in a "side-by-side" configuration (see Figure 3). Therefore, Iderosa fully meets "including juxtaposing the wire and the blade in a generally parallel configuration" given its broadest reasonable interpretation.

With respect to the limitations of claim 23, Iderosa discloses the method including first moving the heated wire (heating element 15) and then the blade (46) across the skin (see arrow 38 in Figure 3; column 3, line 52 - column 4, line 18; column 6, lines 28-44).

With respect to the limitations of claims 24 and 25, Iderosa discloses the elongated heated wire (heating element 15) preheating (Abstract) and softening the hair

Art Unit: 3742

(column 3, line 52 - column 4, line 18; column 6, lines 28-44) and the blade (46) being used to cut the hair.

Iderosa discloses all of the limitations of the claimed invention, as previously set forth, except for the wire being heated to a temperature of at least 50°C, a temperature higher than 100°C, a temperature higher than 150°C, a temperature higher than 250°C, a temperature higher than 350°C, a temperature higher than 500°C, or a temperature higher than 700°C.

However heating a piece of hair to at least 50°C, a temperature higher than 100°C, a temperature higher than 150°C, a temperature higher than 250°C, a temperature higher than 350°C, a temperature higher than 500°C, or a temperature higher than 700°C is known in the art. Solvinto, for example, teaches a cutting apparatus having one blade carrying a metal wire or strip which is heated to a temperature of between 700 and 1000 °C. In addition, Ringler et al. teach a heating element that is heated to a temperature of from about 400 to about 1000°F (equivalency being from about 204.4 to about 537°C) (Abstract; page 2, paragraph 27; page 4, paragraph 48, pages 4-5, claims 2-4, 17-19). Ringler et al. further teach the advantage such a configuration provides a means to heating a hair follicle to such a temperature for fusing and sealing the cuticle, cortex and medulla layers of the hair shaft.

Therefore, in view of Solvinto, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the heating element of Iderosa with the carrying a metal wire or strip which is heated to a temperature of between 700 and 1000 °C, since as evidenced by Ringler et al., such a temperature range provides a

Art Unit: 3742

means to heating a hair follicle to such a temperature for fusing and sealing the cuticle, cortex and medulla layers of the hair shaft, thereby increasing the efficiency of the hair cutting apparatus

With respect to the limitations of claim 12, Iderosa discloses the heating element (15) heating to a temperature sufficient to soften hair before the hair is cut by the blade (46). Solvinto, as evidenced by Ringler et al., teach a temperature that is associated with cutting hair in order to completely fuse and seal and hair follicle. It is known in the art that hair tends to typically be substantially in the range 100 microns. However, it is physically impossible for all of the hair follicles to be equivalent in thickness. Therefore since some of the relatively thin hair follicles would be not only be softened but would potentially be cut in lieu of the temperature ranges taught by Solvinto and Ringler et al., it is deemed that Iderosa in view of Solvinto and Ringer et al. would provide a wire heated to a temperature high enough to at least cut some of the relatively thin hairs. Therefore, Iderosa in view of Solvinto and Ringer et al. fully meets "said wire is heated to a temperature high enough so that it cuts at least some of the hair before the hair comes into contact with said blade, when the heated wire and blade are drawn across the skin" given its broadest reasonable interpretation.

13. Claims 2-4 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iderosa (U.S. Patent No. 5,065,515) in view of Solvinto (French Publication No. FR 2532878 A) and Ringler et al. (U.S. Patent No. 20020151881) as applied to claims 1, 5-13 and 16-25 above, and further in view of Hashimoto (U.S. Patent No. 6,043,457).

Art Unit: 3742

With respect to the limitations of claims 28 and 29, Iderosa discloses the elongated heated wire (heating element 15) being heated to a temperature sufficient to soften hair when the apparatus is brought into contact with a skin surface (column 3, line 52 - column 4, line 18; column 6, lines 28-44). Therefore, Iderosa fully meets “wherein said wire is heated when said cutting head comes in contact with a skin surface” given its broadest reasonable interpretation.

Iderosa in view of Solvinto and Ringler et al. discloses all of the claimed limitations, as previously set forth, except for a row of skin depressing elements on at least one side of the elongated heated wire or a row of skin depressing elements on both sides of the elongated heated wire; and the wire having a diameter between 10 to 1000 micrometers.

However, a pair of equally spaced skin depressing elements comprising rows of skin depressing side elements on each side of the heat generator, as described by, Hashimoto, is known in the art. Hashimoto, for example, teaches opposed comb tooth plates (3, 3) to provide improved and easy access of hair entering the hair singing device, while not affecting or removing the required safety buffer between the user and the heating wire. In addition, Hashimoto teaches a heating element (13a) comprising a heating wire (13aa) made of nichrome fine wire having a diameter in the range of 0.1 to 0.14 mm (equivalency being 100 to 140 μm). Furthermore, Iderosa teaches the advantage of a thinner, beveled and rounder portion of the heating element is relatively electrically more resistive than other thicker portions or even elements, thereby dissipating relatively more heat.

Art Unit: 3742

In view of Hashimoto, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the guard elements have comb teeth to provide improved and easy access of hair entering the hair singing device, while not affecting or removing the required safety buffer between the user and the heating wire. It would have further been obvious to one of ordinary skill in the art at the time of the invention was made to modify Iderosa in view of Solvinto and Ringler et al. with the wire having a diameter between 10 to 1000 micrometers of Hashimoto, since as evidenced by Iderosa, such a thinner, beveled and rounder portion of the heating element is relatively electrically more resistive than other thicker portions or even elements, thereby dissipating relatively more heat.

Prior Art

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 1,505,578 to Barra a teaching of a heated razor.

U.S. Patent No. 6,817,101 to Bohmer is a teaching of hot blade razor.

U.S. Patent No. 5,653,025 to Cheng et al. is a teaching of thermally assisted shaving system.

U.S. Patent No. 5,653,025 to Kozikowski is a teaching of thermally enhanced shaving system.

French Publication No. FR 2716402 A1 to Des Garets is a teaching of a razor shaving head incorporating heating.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN J. RALIS whose telephone number is (571)272-6227. The examiner can normally be reached on Monday - Friday, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen J Ralis/
Primary Examiner, Art Unit 3742

Stephen J Ralis
Primary Examiner
Art Unit 3742

SJR
August 7, 2008